sion analysis was employed to assess impact of socioeconomic,demographic and disease- specific variables on WTP for QALY. **RESULTS:** Totally, 149 patients with type 1 and 2 diabetes were included in analysis. Types 1 were younger with higher probability of hospitalization and longer diabetes duration. Foot diabetic disease, eye disease and hypertensive were the main comorbidities in both types, accordingly. Mean willingness to pay per QALY were estimated between 58,982,210-124,675,610 IRR (Iranian Rials) that is equal 2107-4453 US Dollars. Significantly, patients with better health state, higher cost group (as a proxy of income) and inpatients admission had higher WTP for QALY. **CONCLUSIONS:** Mean WTP per QALY are between 0.44-.93 times of local Gross Domestic Product (GDP) per capita. According to recommendation of world health organization on using 1-3 time GDP per capita as a threshold value and defined cost-effectiveness categories, our findings, although, is closed to one, but do not advocate strongly the proposed range by WHO. Thus, in decision making and resource allocation process, WHO recommendation should be employed with cautious and more investigation.

PDB110

MOBILE PHONE USE AND WILLINGNESS TO PAY FOR SMS FOR DIABETES IN BANGLADESH

Shariful Islam SM

Ludwig-Maximilians-Universität (LMU), Munich, Germany, Munich, Germany

OBJECTIVES: Mobile phone SMS is increasingly used as a means of communication between patients and their healthcare providers in many countries of the world.We investigated mobile phone use and factors associated with willingness-to-pay (WTP) for diabetes SMS among patients with type 2 diabetes in Bangladesh. **METHODS:** As part of a randomized controlled study, in 515 patients with type 2 diabetes, socioeconomic status, mobile phone use, WTP for diabetes SMS, anthropometry and HbA1c were measured. Multivariate regression was used to identify factors associated with WTP. **RESULTS:** The median (interquartile range [IQR]) of WTP for diabetes SMS was 20 (45) Bangladesh Taka (BDT) (1 BDT ¼ 0.013 US$). WTP was significantly higher for males [OR 2.4, 95% CI (1.0–5.7)], patients with household income .50 000 BDT [4.6 (1.1–20.4)] and those with primary education [5.6 (1.2–26.6)] and secondary and higher education [5.2 (1.4–19.6)]. **CONCLUSIONS:** The high proportion of mobile phone use and WTP for diabetes SMS are encouraging as possible strategy to use such technologies and deserve further evaluation.

PDB111

WILLINGNESS TO PAY FOR QUALITY-ADJUSTED LIFE YEARS IN PATIENTS WITH DIABETE

Moradi N[1], Rashidian A[2]

[1]*shahid beheshti university of medical science, tehran, Iran,* [2]*tehran university of medical science, tehran, Iran*

OBJECTIVES: The aim of this study was to estimate willingness to pay (WTP) amount for one quality adjusted-life years (QALY) in diabetic patients and investigating factors that associated with it. **METHODS:** A cross sectional survey with face to face interviews was conducted with diabetic patients in Tehran city between June and August of 2014 to elicit WTP for QALY as following: First, Current health preferences were measured using EuroQol-5D (EQ-5D), visual analogue Scale (VAS) and time trade off (TTO) techniques, then a hypothetical scenario using double bounded dichotomous choice technique was presented to patients to elicit individual's maximum WTP for a treatment that recovering them to full health ,contingent to be available. So value of QALY was estimated by combining preferences. A regression analysis was employed to investigate impact of individuals' characteristics and disease- specific variables on the WTP for QALY. **RESULTS:** Totally, 149 patients with type 1 and 2 diabetes were included in analysis. Types 1 were younger with higher probability of hospitalization and longer diabetes duration. Foot diabetic disease, eye disease and hypertensive were the main comorbidities in both types, accordingly. Mean willingness to pay per QALY were estimated between 58,982,210-124,675,610 IRR (Iranian Rials) that is equal 2107-4453 US Dollars. Significantly, patients with better health state, higher cost group (as a proxy of income) and inpatients admission had higher WTP for QALY. **CONCLUSIONS:** Mean WTP per QALY are between 0.44-.93 times of local Gross Domestic Product (GDP) per capita. According to recommendation of world health organization on using 1-3 time GDP per capita as a threshold value and defined cost-effectiveness categories, our findings, although, is closed to one GDP per capita, but do not advocate strongly the proposed range by WHO. Thus, in decision making and resource allocation process, WHO recommendation should be employed with cautious and more investigation.

DIABETES/ENDOCRINE DISORDERS – Health Care Use & Policy Studies

PDB112

USING THE TRANSTHEORETICAL MODEL TO ENHANCE SELF-MANAGEMENT ACTIVITIES IN TYPE 2 DIABETIC PATIENTS: A SYSTEMATIC REVIEW

Mohamed Ibrahim MI[1], Arafat Y[1], Awaisu A[2]

[1]*College of Pharmacy, Qatar University, Doha, Qatar,* [2]*Qatar University, Doha, Qatar*

OBJECTIVES: The objective of this study is to assess the use of transtheoretical model (TTM) in improving self-management activities in type 2 diabetic patients. Self-management activities include following a healthier diet, exercising more regularly, and an enhanced medication adherence. **METHODS:** Pubmed, Medline, Science direct, and Cochrane databases were searched with predefined terms relating to TTM interventions for type 2 diabetic patients. All study designs were included. The systematic search was conducted in March 2015. Two reviewers independently assessed the relevance of abstracts identified, extracted the data and undertook quality analysis. The review was done using PRISMA checklist. **RESULTS:** Ten studies met the criteria for inclusion in the review. All studies demonstrated some positive outcomes self-management due to implementing TTM. In six studies the patients reached the action or maintenance stage in the TTM cycle after the TTM intervention. Moreover, TTM was able to help patients follow a healthier diet (n=5), exercise more (n=2), and it caused a reduction in glycosylated hemoglobin (HbA1c) (n=4). The impact of TTM on medication adherence is still unknown. **CONCLUSIONS:** TTM helps type 2 diabetic patients self-manage their condition, and to reach their goals, hence achieving better clinical outcomes, and quality of life.

PDB113

INTENSIFICATION OF BASAL INSULIN TREATMENT AMONG PATIENTS WITH DIABETES MELLITUS TYPE 2 IN THE NETHERLANDS

Overbeek J[1], Houben E[1], Kring S[2], Sommer J[3], Penning-van Beest F[1], van der Heijden A[4], Nijpels G[4], Herings R[1]

[1]*PHARMO Institute for Drug Outcomes Research, Utrecht, The Netherlands,* [2]*Novo Nordisk Scandinavia AB, Copenhagen, Denmark,* [3]*Novo Nordisk B.V, Alphen a/d Rijn, The Netherlands,* [4]*EMGO Institute, VU Medical Centre, Amsterdam, The Netherlands*

OBJECTIVES: To characterise type 2 diabetes (T2DM) patients in the Netherlands initiating basal insulin and those intensifying treatment. **METHODS:** Antidiabetic dispensing records were obtained from the Out-patient Pharmacy Database of the PHARMO Database Network. New users, i.e. first-time dispensing, of basal insulin only were selected between 2007-2012. Treatment intensification was defined as either add-on of GLP-1, bolus insulin or DPP-4i or switch to premixed insulin. Demographics and HbA1c before basal insulin start (pre-insulin), at intensification and post- intensification were assessed including time to intensification. **RESULTS:** A total of 15,986 T2DM patients initiating basal insulin only (median (IQR) age at start basal insulin: 65 (55-74) years, 52% male, 87%, 75% and 51% had a pre-insulin HbA1c >53, >58 and >64 mmol/mol, respectively). Overall, 4,945 patients (31%) intensified treatment during a median follow-up of 14 months (median (IQR) age at start basal insulin: 63 (53-73) years, 50% male, 88%, 78% and 54% had an HbA1c at intensification >53, >58 and >64 mmol/mol, respectively). Intensification mostly was add-on of bolus insulin (58%) or switch to premixed insulin (39%). Median (IQR) time to intensification was 8 (2-15) months. Among patients with an HbA1c >53, >58 and >64 mmol/mol at intensification, median (IQR) time to intensification was 12 (5-23), 12 (5-22) and 12 (5-22) months, respectively. Post-intensification, 32%, 52% and 73% of the patients attained an HbA1c of ≤53, ≤58 and ≤64 mmol/mol, respectively, with median reduction in HbA1c of 6 mmol/mol. **CONCLUSIONS:** About one third of T2DM patients initiating basal insulin intensified their treatment leading to glycemic goal attainments of HbA1c ≤53, ≤58 and ≤64 mmol/mol in 32%, 52% and 73% of patients, respectively. Further research might provide more information on the underlying reasons and potential barriers for intensifying versus not intensifying, such as patient characteristics, co-medication, treatment complexity and occurrence of hypoglycaemic events.

PDB114

EFFICIENCY OF A PERSONALIZED CARE MODEL IN DIABETES AS AN EXAMPLE OF CHRONIC DISEASE WITH INFORMATION AND COMMUNICATIONS TECHNOLOGY SUPPORT

López-Martínez N[1], Brosa M[1], Segú-Tolsà L[1], Kalfhaus L[2], Bohigas L[2]

[1]*Oblikue Consulting, Barcelona, Spain,* [2]*Emminens Healthcare Services S.L., Madrid, Spain*

OBJECTIVES: To evaluate the clinical and the economic outcomes of a personalized care model (PCM) in diabetes mellitus (DM) supported by information and communications technology (ICT) in the Spanish National Health System (NHS). **METHODS:** We evaluated a PCM in DM proposed by a group of European experts based on 6 steps: 1.Structured education; 2.Structured self-monitoring of blood glucose (SMBG); 3.Structured documentation; 4.Structured data analysis; 5.Personalized treatment; 6.Evaluation of results. A literature review was made to assess the results of interventions made within the NHS that used the PCM described. Interventions evaluating type 2 DM (T2DM), type 1 DM (T1DM) and gestational DM were included. The health outcomes measured were the variation in HbA1c,the percentage of controlled patients, the body mass index and the body weight. The analysis was made from the payer's perspective, considering the direct costs related to the pathology (€ 2015). Costs evaluated were: hospital costs, outpatient visits costs, primary care costs, emergency care costs and SMBG costs. **RESULTS:** The review carried out showed that the introduction of this PCM in T2DM would result in an increase of up to 18% in controlled patients (HbA1c% <7%) compared with the current model (follow-up of 12 months). The expected reduction in HbA1c%would be about -0.5%. The implementation of the PCM proposed would reduce the cost of T2DM by about 12% compared with the current model with reductions of up to 30% in the cost for outpatient visits. The expected reduction in total direct costs was approximately 12% in T1DM and around 14% in gestational DM. **CONCLUSIONS:** The implementation of a PCM in DM with ICT support improved or provided equal disease control compared with conventional care and reduced the high costs associated with diabetes. ICT enables adaption and changes in the current model of care and potentiate self-management strategies.

PDB115

DIABETES CONVERSATION MAPS AND HEALTH OUTCOMES: A SYSTEMATIC LITERATURE REVIEW

Srulovici E[1], Kay C[2], Rotem M[2], Golfenshtein N[3], Balicer R[1], Shadmi E[4]

[1]*Clalit Research Institute, Clalit Health Services, Tel Aviv, Israel,* [2]*Clalit Health Services, Tel-Aviv, Israel,* [3]*University of Pennsylvania, Philadelphia, PA, USA,* [4]*University of Haifa, Haifa, Israel*

OBJECTIVES: To identify, describe in detail, and assess the evidence regarding the effects of Diabetes Conversation Maps™, an educational tool that engages diabetic patients in group discussions about diabetes-related topics, over a range of patient outcomes. **METHODS:** We conducted a systematic literature review of articles published since 2005 that evaluated the Maps™ since 2005 using five electronic databases, and the reference lists of relevant papers. Non-English languages, non-journal papers, and studies that only included a description of the Maps™ were excluded. A quality assessment of relevant studies was performed. Outcomes were grouped into: objective (e.g., HbA1c levels), subjective (e.g., self-efficacy), and health behaviors (e.g., medication adherence). **RESULTS:** Of the 62 studies originally identified, 13 were included in the final sample. The overall methodological quality of the